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Sent: Thursday, April 15, 2021 3:47 PM

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Subject: Hingham reservoir Zone A site visit

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This email is to document the results of a site visit I conducted yesterday, Wednesday April 14, 2021 at the Hingham Street Reservoir at 835 Hingham Street, Rockland, Mass. The reservoir is owned and operated by Abington-Rockland Joint Water Works (ARJJW) that serves the towns of Abington and Rockland. There are two adjacent reservoirs: the original Hingham Street reservoir to the north and an expansion reservoir to the southeast. Water from both reservoirs are treated at an on-site drinking water treatment plant. Present were Mr. Joe LaPointe from ARJWW, two ARJWW staff, Stephen Olson of H2Olson Engineering, and Lori MacDonald of Coneco consultants.

The site visit was requested by Coneco, whose client is proposing development of the Shingle Mill Multifamily Development project at 0 Pond Street in Rockland. Most of the property proposed to be developed is within the Zone A Surface Water Supply Protection Area for the Hingham Street Reservoir.

See screen shots of the area below. Ben Mann Brook and one of its tributaries originates northeast of the development property, flow through and along the border of the development property, then runs along the eastern side of the original reservoir, and between the original reservoir and the expanded reservoir. The Zone A for the brook and a tributary to the brook cover most of the area of the proposed development. There is no indication on the hydrography layer shown on the MassGIS layer "Massachusetts Water Features" that the brook discharges to either reservoir; the brook is shown as passing through the two reservoirs. Coneco requested the site visit to clarify whether the brook discharged to the reservoirs because if not, it would eliminate the Zone A area at the development site at 0 Hingham Street.

The site visit revealed that there are three locations where Ben Mann Brook can and does discharge to one or both reservoirs, shown as locations A, B, and C. on lower screen shot below. Therefore, the Zone A areas above the reservoirs will remain as mapped.

Location A: there is a dam structure with stop logs on the western side of the stream. Removing the stop logs allows water to flow from the stream into the reservoir through a buried corrugated iron pipe approximately 20 inches in diameter. At the time of the site visit, the stream level was below the top of the stop logs, but stream water was leaking through the stop logs and was discharging into the reservoir at a relatively low flow (less than 20 gallons per minute).

Location B: two PVC pipes approximately 8 inches in diameter run from the stream downward to the reservoir and could allow flow from the stream to the reservoir under high flow conditions. Neither pipe had flowing water at the time of the site visit. There are no controls on the pipes.

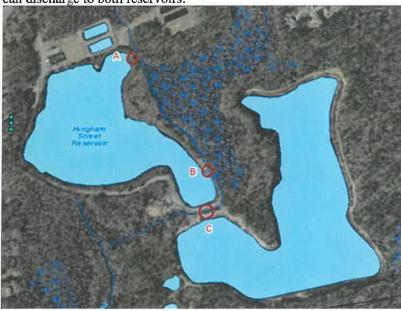
Location C: The stream flows to the southwest, between the two reservoirs. There is a structure with stoplogs that allow water to flow by gravity from the brook into either or both reservoirs when flow in the

brook is sufficient and the elevation of the brook is higher than the reservoirs. Mr. LaPointe reported that ARJWW removes the stoplogs when streamflow allows and they want to fill the reservoirs.

The proposed development is in the red circle below. The crosshatch area is Zone A.



At locations A, and B Ben Mann Brook can discharge into the Hingham Street Reservoir; at location C it can discharge to both reservoirs:



Richard Friend MassDEP Drinking Water Program